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PRC

PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

ACME FINISHING COMPANY, INC. ELK GROVE VILLAGE, ILLINOIS

ILD 005 087 812

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

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EPA Region	:	5
Site No.	:	ILD 005 087 812
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EXECUTIVE SUMMARY

Resource Applications, Inc. (RAI) performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Acme Finishing Company, Inc. (Acme) facility in Elk Grove Village, Illinois. This report summarizes the results of the PA/VSI and evaluates the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritization of RCRA facilities for corrective action.

Acme is located in a light-industrial area of Elk Grove Village, a northwestern suburb of Chicago, Illinois. The company provides custom paint finishing services to manufacturers of diversified metal products and has been in operation since 1976. The 50-acre site is currently regulated as a generator of hazardous wastes. The primary wastes generated are paint solids and solvents (F003/F005), including naphtha and xylene, which are used in their baked-on coating process. These wastes are drummed and either distilled on-site or transported off-site for disposal. Historically, many of the paints at the facility have contained lead, but all paint products currently in use are lead-free. There is no evidence of past remedial or removal corrective action at this facility.

The PA/VSI identified the following 5 SWMUs and 2 AOCs at the facility:

Solid Waste Management Units

1. Outdoor Drum Storage Area
2. Special Waste Dumpster
3. Burn-off Oven
4. Wastewater Treatment Tanks
5. Paint Solvent Still

Areas of Concern

1. Outside Paint Solvent Fill Ports and USTs
2. Underground Storage Tanks under North Parking Lot

Due to a lack of secondary containment, the potential for release to ground water, surface water, air and soil from the Outdoor Drum Storage Area (SWMU 1) is moderate. Other SWMUs at this facility have a low potential for release to the environment. They are either located indoors or

their overflow is routed to drains, and, in turn to wastewater treatment tanks whose contents are treated before release to the sewer system. The only evidence of past releases is staining on the ground in the Outdoor Drum Storage Area (SWMU 1) and around the Outside Solvent Fill Ports (AOC 1), and there is no documented soil contamination at the facility.

The release potential to ground water and soil from the AOCs is moderate, as they are underground storage tanks which are not monitored and are subject to corrosion. The potential for release to surface water or air is low.

Elk Grove Village is served by a municipal water system whose source is Lake Michigan. Thus, the community is not dependent upon water from ground water wells. There are no sensitive environments or habitats of endangered species within two miles of the site.

The nearest residences to the site are three-quarters of a mile away to the west. Access to the facility is unrestricted, other than that the warehouse is locked during non-business hours.

RAI recommends that soil sampling be conducted beneath the stained and cracked areas of the asphalt pad in the Outdoor Drum Storage Area (SWMU 1), and that adequate secondary containment be constructed, preferably in the form of a berm around the area. No further action is recommended at this time for any of the other SWMUs. For AOC 1 (Outside Paint Solvent Fill Ports and USTs) no further action is recommended pending results from the ongoing tank testing. RAI recommends that tank testing be conducted, under the proper authority, for AOC 2 (Underground Storage Tanks under North Parking Lot).

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5. Resource Applications, Inc. (RAI), TES 9 Team member, provide necessary assistance to complete the PA/VSI activities for Acme Finishing Company, Inc. (Acme).

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells.
- Closed and abandoned units.
- Recycling units, wastewater treatment units, and other units that EPA has generally exempted from standards applicable to hazardous waste management units.
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading-unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release to the environment of hazardous waste or constituents has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility.
- Obtain information on the operational history of the facility.
- Obtain information on releases from any units at the facility.
- Identify data gaps and other informational needs to be filled during the VSI.

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA.
- Identify releases not discovered during the PA.
- Provide a specific description of the environmental setting.
- Provide information on release pathways and the potential for releases to each medium.
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases.

The VSI includes interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all SWMUs, identifying evidence of releases, initially identifying potential sampling locations, and obtaining all information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Acme Finishing Company, Inc. (Acme) facility (ILD 005 087 812) in Elk Grove Village, Illinois. The PA was completed on April 10, 1991. RAI gathered and reviewed information from the Illinois Environmental Protection Agency (IEPA) and from EPA Region 5 RCRA files. RAI also reviewed publications from the U.S. Department of Agriculture (USDA), U.S. Geological Survey (USGS), Federal Emergency Management Agency (FEMA) and the Illinois State Geological Survey (ISGS).

The VSI was conducted on April 11, 1991. It included interviews with Acme facility representatives and a walk-through inspection of the facility. Five SWMUs and two AOCs were identified at the facility.

RAI completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Attachment A. The VSI is summarized and 12 inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location, past and present operations (including waste management practices), waste generating processes, release history, regulatory history, environmental setting, and receptors.

2.1 FACILITY LOCATION

The Acme facility is located at 1595 Oakton Street, Elk Grove Village, Illinois, in Cook County. Elk Grove Village is a northwest suburb of Chicago, and the facility is located in a predominantly light-industrial area (Figure 1). The 50-acre site is situated on the south side of Oakton Street, which consists of four lanes. A motel is located directly to the east and an empty lot belonging to a mushroom farm is located to the west. To the south is the manufacturing plant for Halo Lighting, Acme's largest account; in fact, the Halo Lighting and Acme facilities are directly connected. North of the Acme facility, across Oakton, are the Midway Motor Lodge and a small office complex.

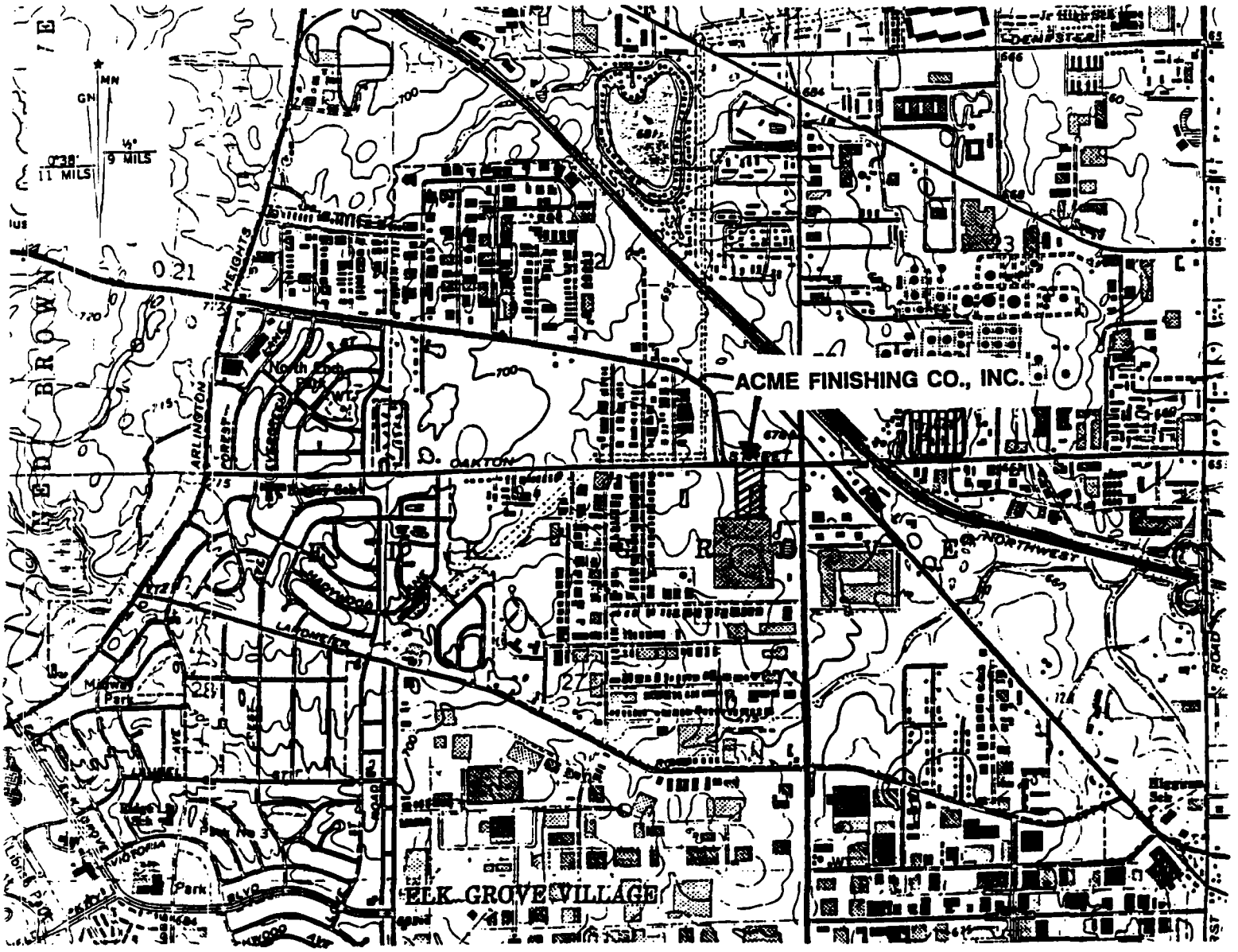
2.2 FACILITY OPERATIONS

Acme provides custom paint-finishing services for manufacturers of diversified metal products. Starting materials are prefabricated metal parts of mostly steel and aluminum. In the past, aluminum/zinc die-casting materials were also treated. Paint coatings are applied to these parts and then baked on. The coatings include: high- and low-solid solvent-based paints; water-based paints; and, dry powder coatings electrostatically applied. Acme has operated this site since August 9, 1976 when the facility moved from Rosemont, Illinois (Figure 2). Some years prior to Acme's arrival, McGraw-Edison Co. purchased a 50-acre tract of farmland which comprised the current Acme site. Halo Lighting, an operating unit of McGraw-Edison, set up its facilities shortly after the purchase. In 1976, at the prompting of Halo Lighting, Acme also moved to the property. There are approximately 80 employees, 20 to 30 of whom are temporary.

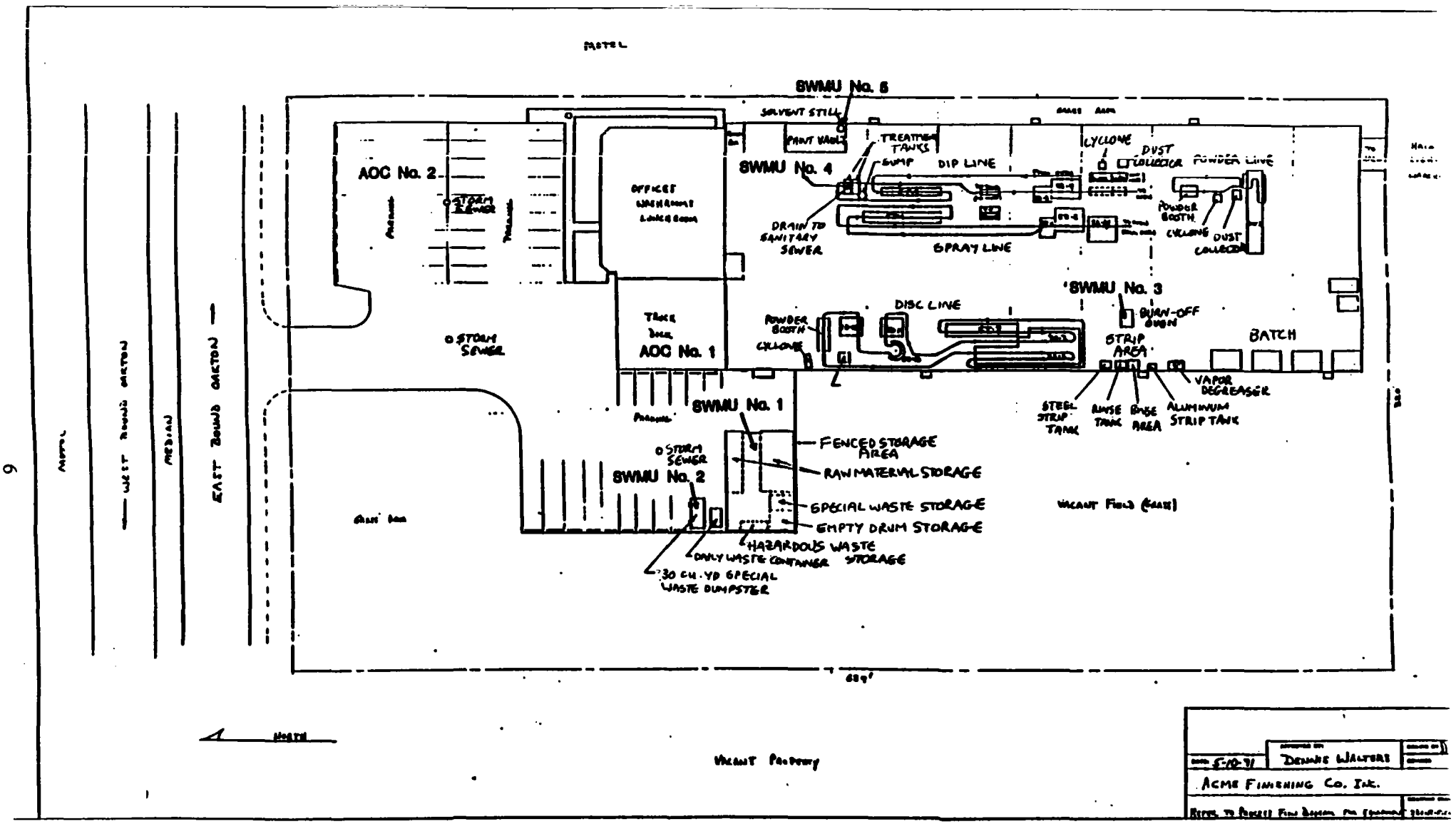
Waste solvents used as paint thinners (e.g. xylene, naphtha, and formerly, toluene - F003/F005) are distilled on site. Trichloroethylene (TCE) is used as a degreaser, and the 70% TCE/ 30% oil mix resulting from the degreasing process (F001) is distilled on site. Still bottoms from both the paint solvent and TCE distillation processes are sent to EWR in Coal City, IL, which arranges for them to be incinerated. If the TCE is not up to specification after distillation, it is recycled on-site by Solvent Systems International, in one of the facility's parking lots.

FIGURE 1

FACILITY LOCATION



Acme Finishing Co., Inc. Elk Grove Village, Illinois
Figure 1 Facility Location
Scale 1:24,000 Source: USGS, 1981
Resource Applications, Inc.



Acme Finishing Co., Inc. Elk Grove Village, Illinois
Figure 2 Facility Layout
Approximate scale: 1" = 78' Source: Dennis Walters, Acme Finishing
Resource Applications, Inc.

Hot stripper waste comprises two streams: caustic potash (KOH), which is sent through the wastewater treatment system for neutralization; and a diethanolamine/monoethanolamine blend (DEA/MEA - F017), which is drummed and shipped to EWR, which transports the waste for incineration. Excess paint that has accumulated on racks and hooks in application areas is burned on site in a controlled-pyrolysis oven (the Burn-off Oven - SWMU 3). The waste ash is managed in the Special Waste Dumpster (SWMU 2) along with spray booth filters, paint scrapings and plastic drip sheets from under the drip line. These wastes are removed by Garden City to Settler's Hill, Batavia, Illinois. Skimmed oil from washers and settling tank sludge is drummed and sent to STA Decanting in Hammond, Indiana. Washer sludge, which contains phosphoric acid and iron phosphate, is drummed and transported off-site for disposal by Dombrowski & Holmes or Land & Lakes. All drummed waste is stored in the Outdoor Drum Storage Area (SWMU 1) prior to removal from the site.

Table 1 lists the Acme facility's Solid Waste Management Units (SWMUs).

TABLE 1

SOLID WASTE MANAGEMENT UNITS (SWMU)

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit*	Status
1	Outdoor Drum Storage Area	Yes	RCRA closure approved in 1985; now used for less than 90 day storage.
2	Special Waste Dumpster	No	Active
3	Burn-off Oven	No	Active
4	Wastewater Treatment Tanks	No	Active
5	Paint Solvent Still	No	Active

Note:

* A RCRA hazardous waste management unit is one that currently requires or formerly required a RCRA Part A or Part B permit.

2.3 WASTE GENERATING PROCESSES

Paints used at the Acme facility are mainly white, black or grey. Some red, orange, and yellow tinted paints have been used in the past, but these contained lead, and Acme is currently using only lead-free paints. There are 5 coating departments in the shop; four use conveyor systems and are known respectively as the disc line, spray line, dip line and powder line (Attachment D). The remaining department consists of a batch line. On the conveyor lines, the metal parts are first washed in a spray parts washer containing water (96-97%) with iron phosphate and phosphoric acid as cleaning agents (3-4%); they are then dipped in a kerosene-based solvent parts cleaner. This solvent is treated in the Paint Solvent Still (SWMU 5), while the sludge from the washer is drummed and disposed of by Dombrowski & Holmes or Land & Lakes. The drums are managed in the Outdoor Storage Area (SWMU 1), and are disposed of within 90 days of the start of accumulation. Waste oil is skimmed off the washer tank surface and drummed for disposal by STA Decanting in Hammond, Indiana. The drums are managed in the Outdoor Drum Storage Area (SWMU 1). The iron phosphate/phosphoric acid wastewater is collected in a sump and pumped into 2 in-series treatment tanks (SWMU 4). Wastewater treatment sludge (F018) settles out in the tanks, and is drummed and disposed of by STA Decanting. The tanks are monitored continually for pH, and a pump triggers injection of sulfuric acid to neutralize any alkalinity. The wastewater, once treated, is discharged to the municipal sewer system.

Once the parts are washed they pass through a dry-off oven. The batch department uses a gas-fired open-top vapor degreaser containing trichloroethylene (TCE) to clean parts prior to spraying. When the TCE becomes contaminated with more than 30% oil, it is removed and distilled in the Paint Solvent Still (SWMU 5), the still bottoms being transported off-site by EWR, Coal City, IL. After distillation, the TCE is recycled on-site by Solvent Systems International (SSI). Periodically, SSI bring a mobile recycling/reclaiming unit on site and the process takes place in one of the parking lots. Drums of both product and contaminated TCE are managed in the Outdoor Drum Storage Area (SWMU 1).

On the disc line, the parts pass through 3 conventional (wet) spray booths, then through a powder spray booth. On the spray line, they pass through 3 wet spray booths. On the dip line, the parts are dipped into a paint tank and then pass through 2 spray booths and a powder booth. The powder line consists of a single powder booth. The walls of all the booths are covered with fiberglass baffles to trap airborne paint, and the floors are covered with cardboard in the wet spray booths and plastic sheeting in the powder booths. The baffles are compacted into bales and disposed of daily, along with the floor coverings, in the Special Waste Dumpster (SWMU 2). Excess paint that has accumulated on racks and hooks in the spray booths is removed by burning in an 800°F controlled-pyrolysis Burn-off

Oven (SWMU 3) to incinerate paint resins and volatiles. The resulting non-hazardous ash is swept up and disposed of in the Special Waste Dumpster (SWMU 2). Less than 10 lbs. of ash is produced per day. Excess powder paint is collected in a separator or dust collector (Photo 11) and disposed of in the Special Waste Dumpster (SWMU 2). The main hazardous waste stream from the spray booths is waste paint solvent (F003/F005) produced primarily by the flushing of paint lines when changing colors. This waste is collected in drums which are stored in the Outdoor Drum Storage Area (SWMU 1) prior to being processed on site in the Paint Solvent Still (SWMU 5). In addition the solvent is recycled by SSI as outlined above for the TCE waste stream. The resulting clean solvent is reused; the hazardous waste stream from the solvent still is the still bottoms, which are disposed of off-site by EWR. A sloped concrete floor with a drain leading to a 5,000-gallon Underground Storage Tank below the North Parking Lot (AOC 2) acts as secondary containment for the area of the solvent still. Raw material solvent is stored in two-1000 gallon underground storage tanks outside the northwest corner of the facility buildings (AOC 1). These solvent storage tanks are replenished every 4 to 5 months. Non-hazardous spray booth sludge is drummed and disposed of off-site by Land & Lakes.

In all the painting departments, painted parts pass through a bake oven to fix the paint coating. There is some waste generated in the form of baked paint, which is disposed of in the Special Waste Dumpster (SWMU 2).

Two hot strip tanks are used to remove coatings from metal parts. Potassium hydroxide (KOH - D002) is used for steel parts, and a solution of diethanolamine and monoethanolamine (DEA/MEA) is used for aluminum parts. Waste from the KOH tank is centrifuged to remove sludge and the remainder is fed into the Wastewater Treatment Tanks (SWMU 4). DEA/MEA waste is drummed and placed in the Outdoor Drum Storage area (SWMU 1) before disposal. The KOH tank has a concrete floor covered by a metal grating as secondary containment, carrying spillage to the Wastewater Treatment Tanks (SWMU 4). The total rate of generation of hot strip tank KOH sludge is about 1 to 2 drums per year. Until 1987, methylene chloride was used as a cold stripper for aluminum. Waste was drummed and transported off-site for disposal.

All of the ovens and the degreaser are gas-powered. They were once oil-fired, and heating oil was stored in two Underground Storage Tanks under the North Parking Lot (AOC 2) . These tanks have capacities of 5,000 and 20,000 gallons. The larger of the two still contains between 7,000 and 8,000 gallons of oil; the smaller is empty and is used as an emergency overflow tank for the paint vault.

TABLE 2

SOLID WASTES

Waste/EPA Waste Code	Source	Primary Management Unit
Kerosene-based solvent/lacquer thinner	Pre-painting parts cleaner	SWMU 1
Skim oil sludge/F018	Parts washer	SWMU 1
Wastewater containing phosphoric acid & iron phosphate	Parts washer	SWMU 4
Washer sludge	Parts washer	SWMU 1
Wastewater treatment sludge/F018	Settling tank/wastewater treatment tank	SWMU 1
Dirty trichloroethylene/F001	Vapor degreaser	SWMU 5
Trichloroethylene still bottoms/F001	Solvent still	SWMU 1
Paint coated paper, cardboard & plastic	Spray booths/conveyor belts	SWMU 2
Paint-coated fiberglass filters	Spray booths	SWMU 2
Excess paint solids	Spray booths	SWMU 3
Oven ash	Burn-off oven	SWMU 2
Excess powder paint	Spray booths	SWMU 2
Paint-contaminated solvents/F003/F005	Spray booths	SWMU 5
Paint solvent still bottoms/F003/F005: xylene, naphtha [EMSOL 150] (formerly toluene)	Solvent still	SWMU 1
Spray booth sludge (non-hazardous)	Spray booths	SWMU 1
Baked dry paint	Bake oven	SWMU 2
Waste potassium hydroxide/D002	Hot steel stripper	SWMU 4
Diethanolamine/monoethanolamine/F017	Hot aluminum stripper	SWMU 1
Methylene chloride/F001/F017[1]	Cold aluminum stripper	SWMU 1

[1] Use of methylene chloride was discontinued in 1987

2.4 RELEASE HISTORY

During the VSI, evidence of releases from two areas was observed. The asphalt floor of the Outdoor Drum Storage Area (SWMU 1) had white staining and was pitted and cracked in places (Photo 7). This may indicate releases of small quantities of material from the drums stored there, However, it appeared that such releases were contained in the immediate vicinity and thus posed no threat to the environment. In addition, the wall and ground adjacent to the Outside Paint Solvent Fill Ports (AOC 1) was stained, indicating small spills during filling of the tanks. Again, these releases appear to have been well contained.

Apart from these minor observations, no evidence of fire, explosion, or release of hazardous constituents has been documented at the Acme facility.

2.5 REGULATORY HISTORY

Acme filed a Notification of Hazardous Waste Activity on September 26, 1980 (Acme, 1980a) and a RCRA Part A permit application on November 17, 1980, designating the company as a generator and a treatment, storage and disposal (TSD) facility (Acme, 1980b). Wastes with RCRA codes F001, F003, F005, F017 and F018 were registered as being generated at the facility. Two process codes were filed on the application: S01 for the drum storage area (SWMU 1); and T01 for the Wastewater Treatment Tanks (SWMU 4). An annual total of 65,400 pounds of hazardous wastes were estimated as having been generated.

On January 29, 1981, Brad Benning of the Illinois Environmental Protection Agency (IEPA) conducted an inspection at the Acme facility, and a report was subsequently received by the Division of Land Pollution Control on March 2, 1981 (IEPA, 1981). As a result, on May 19, 1981 EPA Region 5 sent a Complaint and Findings of Violation notice to Acme citing 8 violations of RCRA (EPA, 1981a). The facility had failed to: 1) keep records of personnel training; 2) have a written emergency contingency plan available on site; 3) keep records or written guidelines for operator inspection; 4) post "Danger - Unauthorized Personnel Keep Out" signs at the entrance to any active portion of the facility; 5) develop a written schedule for inspection of all monitoring, safety and operating equipment on site; 6) keep a log or summary for such inspections; 7) take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes; and 8) appoint an Emergency Coordinator. On June 18, 1981 Dennis Walters, a vice-president of Acme, wrote to EPA to notify them that these violations had been

rectified (Acme, 1981). A Consent Agreement and Final Order closing out the matter was signed by Walters on July 24, 1981, and by an EPA official on August 4, 1981 (EPA, 1981b).

On August 1, 1983, Acme requested withdrawal of its Part A application as a facility storing hazardous wastes, as its waste haulers were removing the facility's wastes less than 90 days after generation. On November 9 of that year Dennis Walters acknowledged receipt of a letter from IEPA informing the company that its request contained insufficient information (Acme, 1983a). A December 15 letter stated that Acme did not see the need for a closure plan as the frequency of pick-up of waste had merely been increased to comply with the 90-day limit (Acme, 1983b). On February 9, 1984, the submitted closure plans were rejected by IEPA due to lack of detail on closure and disposal procedures (IEPA, 1984a). A modified closure plan was received by IEPA on October 15, 1984 (Acme, 1984). Acme pointed out that its F018 waste (skim oil sludge and wastewater treatment sludge) was delisted as a hazardous waste by EPA in the fall of 1980, and thus the closure plan only applied to the Outdoor Drum Storage Area (SWMU 1). At the time of writing of the closure plan only D001 paint waste was being stored. An Illinois supplemental special waste stream disposal permit had been applied for, making arrangements to dispose of the remaining waste through EWR, Coal City, IL. On December 7, 1984 the closure information was approved by IEPA (IEPA, 1984b), and a March 25, 1985 inspection showed that closure had been completed in accordance with the approved plan (IEPA, 1985). Since that date, Acme has been regulated solely as a generator of hazardous waste.

On August 22, 1986 IEPA conducted a Generator Inspection (IEPA, 1986a) and found no evidence of fire, explosion or release of hazardous waste constituents. Solvent was being sent to Avganic Industries, Inc. for recycling, and trichloroethylene to Safety-Kleen. Caustic hot stripper (KOH) was being generated in small quantities as was cold stripper sludge containing methylene chloride. IEPA notified Acme in an October 17, 1986 letter that the company was in violation of certain RCRA recordkeeping requirements pertaining to employee training, job descriptions and job titles (IEPA, 1986b). On December 31, 1986 Acme responded with the necessary documentation (Acme, 1986), and IEPA notified the company on February 23, 1987 that its violations were considered resolved (IEPA, 1987).

There are no records regarding NPDES permits or CERCLA activity at this site. Acme has had 4 IEPA air permits for internal air pollution control devices (Nos. 75040125, 76110091, 79090029 and 77020005). These permits were operated under the volatile organic compounds (VOC) internal offsets rule, and were for the 5 coating lines, the open-top Vapor Degreaser and the 2 gas-fired air make-up units. These expired on May 17, 1990, and a July 31, 1990, letter from IEPA states that the application

for renewal of these permits was denied on June 14, 1990 (IEPA, 1990). The reason for this denial is not stated, but the letter notified Acme of the penalties for continuing to operate without these permits. The permits were renewed on February 6, 1991, combined into one permit, No. 75040125, which expires January 30, 1993. A separate air permit for the Burn-off Oven (SWMU 3), No. 82010030, expires February 17, 1992. No correspondence is on file past July 1990 concerning air permits; thus it is not known whether the four permits were eventually renewed.

On April 2, 1984, IEPA issued an order for violation of emissions standards for volatile organic material from the open-top degreaser (IEPA, 1984c). In addition, daily emission records were not being kept, as required by the permit. A program to bring the site into compliance was instituted, and a 1988 inspection found Acme to be in full compliance with the Clean Air Act (IEPA, 1988).

2.6 ENVIRONMENTAL SETTING

This section describes the climate, floodplain and surface water, geology and soils, and ground water in the vicinity of the Acme facility.

2.6.1 Climate

The Acme Finishing Co., Inc. site is situated in Elk Grove Village in Cook County, Illinois. It is approximately 4.5 miles northwest of O'Hare International Airport, the location of the nearest U.S. National Weather Service office. With no significant topographical barriers to airmass flow, the climate in the area is typically continental with cold winters, warm summers, and frequent short-period fluctuations in temperature, humidity, cloudiness and wind direction (Ruffner, 1985). The average annual daily temperature is 49.2°F, while the lowest average monthly minimum temperature of 12.4°F occurs in January and the highest average monthly maximum temperature of 83.3°F occurs in July. The prevailing wind direction is west-southwest, and the average wind speed is 10 miles per hour. Average annual precipitation, as a water equivalent, is 33.34 inches. Average annual net precipitation is 3.34 inches. In winter, about one-half of the precipitation (10 percent of the annual total) falls as snow. During the fall, winter and spring, the pattern of precipitation tends to be more uniform over both time and distance, whereas in summer, rainfall is often locally heavy and variable. The 1-year, 24-hour maximum rainfall recorded in the area over a 29-year period is 4.6 inches (Ruffner and Bair, 1985).

2.6.2 Flood Plain and Surface Water

The facility, at an approximate elevation of 685 feet above mean sea level, is situated on the eastern slope of a roughly north-south ridge that directs surface runoff via intermittent streams (Higgins Creek and Willow Creek, both about a half-mile from the site) to the Des Plaines River 6 miles to the east (USGS, 1981). The site locale is classified as a Zone C floodplain area, that is, an area of minimal flooding outside the 500-year flood limit (FEMA, 1982).

2.6.3 Geology and Soil

Surface features in the Chicago area are largely the result of glaciation and almost completely cover the underlying bedrock surface (Willman, 1971). The facility is underlain by two soil units - the Ashkum silty clay loam and the Beecher silt loam. The former is a poorly drained soil which is often artificially drained. Where undrained or where drainage systems have been damaged by construction, the water table is at a depth of 1 foot or less during wet seasons. Thus, this soil occasionally floods for brief periods during spring. Water and air movement through the Ashkum silty clay loam is moderately slow, and its available water capacity is high. Organic matter content is high. This soil's relatively high clay content makes it sticky when wet and hard and cloddy when dry, and gives it poor potential for most urban uses. The Beecher silt loam is a nearly level, somewhat poorly drained soil. When not artificially drained, a water table is at a depth of 1 to 3 feet during wet seasons. Water and air movement through this soil is slow, while available water capacity is moderate. Organic matter content is moderate. This soil, like the Ashkum silty clay loam, has a poor potential for urban uses (USDA, 1979).

Soils in the Chicago area have developed over the past 13,500 years through the weathering of the immediately underlying glacial deposits left behind, for the most part, by retreating Wisconsin-age glaciers. In the vicinity of the site, these glacial deposits take the form of a gray, clayey till containing pebble and smaller-sized black shale particles. Approximately 100 feet of till overlie the uppermost bedrock unit of Silurian age. Formations in the Chicago area of Silurian age are almost entirely dolomite, whose composition ranges from extremely argillaceous, silty and cherty to exceptionally pure. In the site vicinity, it is about 200 feet thick. Beneath the Silurian dolomite are successively older rocks of Ordovician and Cambrian age. Within each of these two systems are distinctive sandstone formations which serve as major aquifer systems in the Chicago area. The base of the Cambrian is in contact with the crystalline pre-Cambrian basement at an inferred depth of 3,800 feet (Willman, 1971).

There are two major bedrock structures in the vicinity of the site -- the Kankakee Arch and the Des Plaines Disturbance. The Chicago area lies on the crest of this broad, gently sloping Arch, and bedrock strata underlying the site have a general eastward dip resulting from the eastward plunge of the Arch. The Des Plaines Disturbance, as indicated by bedrock well log interpretation, is a roughly circular area about 5 1/2 miles in diameter. The site is located a short distance to the southwest of this structure. While bedrock units within the Des Plaines Disturbance area are intensely faulted with vertical displacements up to 600 feet, wells drilled into the surrounding Silurian dolomite have not revealed any faults. There is no surface manifestation of the Des Plaines Disturbance because the bedrock is buried under 75 feet to 200 feet of glacial drift (Willman, 1971). Consequently, there may be faulting of the bedrock in the site vicinity which has not yet been revealed by well sampling.

2.6.4 Ground Water

Ground water is obtained from four major aquifer systems in northeastern Illinois -- the glacial drift system, the shallow bedrock system, and two deep bedrock systems. They are distinguished by their hydrologic properties and recharge source areas (Hughes et al., 1966). In northwestern Cook County, ground water possibilities in the glacial drift system are best in deposits of sand and fine-to-coarse gravel which are up to 100 feet thick and occur mainly in the lower half of the drift (Bergstrom et al., 1955). The shallow bedrock aquifer system in the vicinity of the site underlies the glacial drift system and comprises the Silurian dolomite formations and underlying upper-Ordovician shales. The upper boundary of this system is the top of the bedrock, and the lower boundary is the top of a sequence of formations of middle-Ordovician age called the Galena-Platteville Dolomite. Water from this aquifer is obtained from fractures and solution openings in the Silurian dolomite beds. As a result, individual well yields vary widely, depending upon the water volume present in the drilled openings. Recharge is attained by percolation of local precipitation through the overlying glacial drift and/or permeable materials within the drift sequence itself (Hughes et al., 1966). The shallow bedrock system can serve as a source for domestic, industrial and municipal water supplies. Domestic wells usually obtain water from the upper 15 feet to 75 feet of the dolomite, while wells serving municipalities and industries generally penetrate 50 feet to 250 feet into the dolomite (Bergstrom et al., 1955).

The deep bedrock aquifer systems include the Cambrian-Ordovician aquifer system and the Mt. Simon aquifer system. The former comprises the Glenwood and St. Peter Formations of the middle Ordovician series and the Ironton and Galesville Sandstone Formations of the late Cambrian. The top of the Cambrian-Ordovician aquifer is at the top of or within the Galena-Platteville Dolomite, which serves as the lower boundary for the shallow bedrock aquifer system. In the site locale, the contact

between the Galena-Platteville Formations and the Glenwood Formation occurs at a depth of about 800 feet below the ground surface. The bottom of the Cambrian-Ordovician aquifer system is located in the impermeable shales and dolomites of the upper and middle parts of the Cambrian Eau Claire Formation, at a depth of about 1,400 feet below the ground surface. Thus, this aquifer system spans a thickness of 600 feet (Hughes et al., 1966).

Within the Cambrian-Ordovician aquifer system, the Glenwood-St. Peter sandstone unit is widely utilized as an aquifer where water requirements are less than 200 gallons per minute (gpm). This unit has a permeability of approximately 15 gallons per day per square foot (gpd/sq.ft.). The Ironton-Galesville sandstone unit is the major producing unit in the Cambrian-Ordovician aquifer because it has the most consistent permeability (35 gpd/sq.ft.) and thickness (200 ft.) of the aquifers in northeastern Illinois (Hughes et al., 1966).

Recharge to the Cambrian-Ordovician aquifer system is mostly from western McHenry, Kane and Kendall counties where the rocks crop out at the surface or lie immediately below the glacial drift. Thus the direction of ground water flow is from west to east. Additional recharge occurs directly from leakage of precipitation downward through the shallow bedrock aquifer system.

The second deep bedrock aquifer system - the Mt. Simon aquifer - is bounded above by the relatively impermeable shales and dolomites of the upper and middle parts of the Eau Claire Formation and below by the crystalline pre-Cambrian basement. With the Eau Claire Formation units functioning as an aquitard, water in the Mt. Simon aquifer is about 1,750 feet beneath the ground surface. Although the Mt. Simon Sandstone is nearly 2,000 feet thick, only the uppermost 275 feet of sandstone yield potable water because below that depth the water is too highly mineralized for most purposes (Hughes et al., 1966). The average permeability of the Mt. Simon aquifer system is approximately 16 gpd/sq. ft. (Hughes et al., 1966) and recharge is largely from the outcrop region of Cambrian rocks in central southern Wisconsin (Willman et al., 1971).

2.7 RECEPTORS

The facility is located in an industrial area with the nearest residential areas located 1.5 miles to the east, 1.25 miles to the north, 2 miles to the south and 0.75 miles to the west. Surface drainage of the area is toward the east-southeast into Higgins and Willow Creeks, both about a half-mile from the facility. These creeks join and flow into the Des Plaines River at a distance of 6 miles from the site. Access to the facility is unrestricted, other than that the buildings are locked during non-business hours.

Hazardous wastes are stored in a fenced-in area in the southwest corner of the Acme parking lot (SWMU 1). Public contact with contaminated soil at the site is unlikely because of limited and controlled access to the area. Nearby commercial facilities are also equally unlikely exposure points.

Elk Grove Village receives its water from the municipal water system the source for which is Lake Michigan some 8 miles to the east. Thus the community is dependent upon water from ground water wells. There are no ground water wells within 2 miles of the facility. The nearest surface water is Higgins Creek, a half-mile to the northeast. The possibility of human ingestion of contaminated water from the site is minimal. No sensitive environments or habitats of endangered species are located within 2 miles of the site.

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the 5 SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of release, and RAI observations.

SWMU 1 **Outdoor Drum Storage Area**

Unit Description: This area is a chain-link-fenced, 54-ft.-by-38-ft., asphalt-paved area in the northwest section of the facility (Photos 1-8; Figure 2). This is the storage area listed on the RCRA Part A Permit Application. Access during daytime business hours is unrestricted. At all other times, the gate is locked. The area stores hazardous and nonhazardous wastes, in addition to raw materials. Hazardous wastes are stored (for less than 90 days) on the western side of the storage area, and include drums of paint-solvent still bottoms, dirty trichloroethylene and trichloroethylene still bottoms, and waste hot stripper sludge (potassium hydroxide; diethanolamine/monoethanolamine). Nonhazardous wastes include drums of skim oil from parts cleaning. Raw materials include drums of paint, paint solvent, stripper chemicals, and cylinders of propane gas. The precise count of product and waste drums fluctuates. At the time of the VSI, there were 10 drums of hazardous waste, 5 drums of nonhazardous waste, and approximately 100 drums of product.

Date of Startup: This unit began operation in 1976.

Date of Closure: This unit was closed according to an IEPA-approved RCRA closure plan in 1985. It is currently operating as a less than 90-day hazardous waste storage area.

Wastes Managed:

Paint-solvent still bottoms	F003/F005
Dirty trichloroethylene	F001
Trichloroethylene still bottoms	F001
Hot stripper (potassium hydroxide, diethanolamine/monoethanolamine)	D002/F017
Skim oil sludge	F018

Release Controls: Drummed hazardous wastes are stored on wooden pallets above the asphalt flooring along the western perimeter of the storage area. No other containment is in place. Some drums of product are stored directly on the asphalt floor.

History of Release: During the VSI, the asphalt floor was observed to be pitted, cracked, and stained white in some areas. This may be due to small releases of material from drums (Section 2.4). Other than this, there has been no documented release from this unit.

Observations: The asphalt paving in the storage area shows evidence of age in the form of cracks and pits (Photos 7 and 8), and there is evidence of small releases, as outlined above.

SWMU 2 **Special Waste Dumpster**

Unit Description: This unit is a 30-cubic yard, plastic-lined steel dumpster for disposal of nonhazardous special waste (Photo 9; Figure 2). All such waste originates from painting operations and include paint booth air filters; baked dry-powder paint; and paint-coated paper, cardboard, and plastic. The dumpster is located parallel to and 15 feet north of the north perimeter of SWMU 1.

Date of Startup: This unit began operation in the fall of 1988.

Date of Closure: Currently operating.

Wastes Managed: The dumpster is used for nonhazardous paint operation wastes including baked dry-powder paint; paint booth air filters; and paint-coated paper, cardboard,and plastic.

Release Controls: The steel dumpster is lined with plastic.

History of Release: There has been no documented release from this unit.

Observations: No evidence of release was observed during the VSI. Although the top of the dumpster is open, the plastic liner contains any precipitation leachate, and the mass of individual disposed items is great enough to prevent airborne dispersal.

SWMU 3 **Burn-off Oven**

Unit Description: This is a 6-ft. wide by 9-ft. long by 9-ft. high unit east of the strip area (Photo 14; Figure 2). Paint which has accumulated on racks and hooks is removed by breaking down the paint resins and incinerating the volatiles in a controlled-pyrolysis oven. Excess paint gathered from application areas is also incinerated. Oven ash is swept up and put in the Special Waste Dumpster (SWMU 2). The oven burner operates at 800°F and the afterburner at 1,400°F. The oven is used about twice every shift.

Date of Startup: This unit began operation in the Spring of 1982.

Date of Closure: Currently operating.

Wastes Managed: Excess paint solids are burned in the oven. This unit generates nonhazardous ash which is disposed of in the Special Waste Dumpster (SWMU 2).

Release Controls: During operation, the oven is inaccessible. Ash is discarded at the completion of each burning cycle. Emissions from the unit are monitored and regulated under an IEPA air permit (No. 82010030).

History of Release: There has been no documented release from this unit.

Observations: No evidence of release was observed during the VSI.

SWMU 4 **Wastewater Treatment Tanks**

Unit Description: This unit consists of two 4-ft. by 8-ft. by 4-ft. high steel tanks covering an 8-ft. by 8-ft. section in the northeast area of the plant (Photo 12; Figure 2). The system was incorrectly filed under code T01 on the RCRA Part A application; based on the files obtained by RAI, a correction to the application has not yet

been made. The tanks are connected in series to process up to 600 gpd of production wastewater. The wastewater is brought via pipes into the treatment tanks. Particulates settle out and the pH is automatically adjusted, as necessary, through addition of sulfuric acid before the wastewater enters the sanitary sewer system.

Date of Startup: This unit began operation in 1976.

Date of Closure: Currently operating.

Wastes Managed: Originating at the steel parts strip tank, potassium hydroxide (D002) is introduced to the plant wastewater stream after centrifugation isolates tank sludge. This sludge is drummed, stored in the Outdoor Drum Storage Area (SWMU 1) and disposed of by STA Decanting. In addition, this unit manages wastes introduced at the parts washer tanks on the disc, spray, and dip lines; namely, iron phosphate and phosphoric acid (F018).

Release Controls: No secondary containment system was observed. A drain to the sanitary sewer system is located near the northwest corner of the tanks.

History of Release: There has been no documented release from this unit.

Observations: No evidence of a release was observed during the VSI. The unit is in good condition.

SWMU 5 **Paint Solvent Still**

Unit Description: This is a process system using paint-contaminated solvents as input to a distillation unit that yields reusable solvents and still bottoms. The unit is located in the paint vault which is along the east wall in the north half of the plant. Contaminated solvent is manually added to a drum as it is generated during operations. About once per day, this liquid is pumped from the drum to the still, processing approximately 20 gallons at a time. Still bottoms are drummed and are produced at a rate of approximately one drum every two weeks.

Date of Startup: The startup date for this unit is unknown.

Date of Closure: Currently operating.

Wastes Managed: Paint solvent still bottoms include paint solids and paint solvents (xylene & EMSOL150, a naphtha-based solvent - F003/F005). Toluene (F003/F005) was formerly used as a paint solvent. In addition, TCE is distilled in this unit, and still bottoms are generated as a result.

Release Controls: The still is located in the southeast corner of the paint vault. The vault is a concrete, fully-enclosed structure with a ventilation system. The vault floor is unbroken concrete sloped to the northeast corner where a floor drain leads to a 5,000-gallon Underground Storage Tank beneath the North Parking lot (AOC 2). This UST functions solely as an overflow receptacle in the event of a catastrophic failure of all drums in the vault. It is not currently used for any other purpose. Only the paint foreman has access to the vault.

History of Release: There has been no documented release from this unit.

Observations: No evidence of release was observed during the VSI. Warning notices are posted outside the vault, and drums inside the vault are labelled to indicate contents. The floor of the vault appeared intact, and the still is in good condition.

4.0 AREAS OF CONCERN

RAI identified 2 AOCs during the PA/VSI. They are discussed below.

AOC 1 **Outside Paint Solvent Fill Ports and USTs**

Solvent for use in the stripping process is delivered by tanker truck and stored in two 1,000-gallon underground storage tanks (USTs) which are located outside the northwest corner of the site. Tanker truck hoses are attached directly to the UST fill ports, minimizing the potential for spilling of product. This system is included as an AOC with a moderate potential for release to soil and ground water due to two factors: (1) the possibility exists for overflow to the ground from the mouths of the fill ports and, (2) underground storage tanks are not easily monitored and are subject to corrosion. During the VSI, Staining was noticed on the wall and ground surrounding the fill ports (Section 2.4; Photo 1). This is most likely due to spillage during filling of the tanks, but the releases were contained, and there was no threat to the environment. The USTs are currently in Phase I of testing for actual or potential releases. Nova Environmental is conducting the tests.

AOC 2 **Underground Storage Tanks under North Parking Lot**

These tanks were originally used to store heating oil to power the ovens and the vapor degreaser. The USTs have capacities of 20,000 and 5,000 gallons. At the time of the VSI, the larger tank contained 7,000 to 8,000 gallons of heating oil. The smaller tank is used as secondary containment for overflow from the Paint Solvent Still area (SWMU 5). A sloped concrete floor in this area leads to a drain connected to the UST. These tanks are included as an AOC with moderate potential for release to soil and ground water because underground storage tanks are not easily monitored and are subject to corrosion.

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5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified 5 SWMUs and 2 AOCs at the Acme facility. Background information on the facility's location, operations, waste generating processes, release history, regulatory history, environmental setting, and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, release history, and observed condition, is discussed in Section 3.0. AOCs are discussed in Section 4.0. Following are RAI's conclusions and recommendations for each SWMU and AOC. Table 3 identifies the SWMUs and AOCs at the Acme facility and suggested further actions.

SWMU 1 **Outdoor Drum Storage Area**

Conclusions: This area has no secondary containment, and the concrete floor is cracked and pitted (Photo 7). For these reasons, the potential for release to ground water, surface water, air, or soil is moderate.

Recommendations: Conduct soil sampling beneath the stained areas of the asphalt. Provide adequate secondary containment, preferably in the form of a berm around the area.

SWMU 2 **Special Waste Dumpster**

Conclusions: This dumpster stores nonhazardous wastes and is lined with plastic. Due to this sound secondary containment the potential for release to ground water, surface water, air, or soil is low.

Recommendations: No further action is recommended at this time.

SWMU 3 **Burn-off Oven**

Conclusions: This unit generates nonhazardous ash which is disposed of in the Special Waste Dumpster (SWMU 2). The oven is entirely sealed during operation and is located inside the facility building. Therefore, the potential for release to ground water, surface water, air or soil is low.

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TABLE 3

SWMU and AOC SUMMARY

SWMU	Operational Dates	Evidence of Release	Suggested Further Action
1. Outdoor Drum Storage Area	1976 to present	Minor release from drums (Photo 7) but not to the environment.	Conduct soil sampling beneath stained asphalt. Provide adequate secondary containment.
2. Special Waste Dumpster	Fall 1988 to present	None	No further action is recommended at this time.
3. Burn-off Oven	Spring 1982 to present	None	No further action is recommended at this time.
4. Wastewater Treatment Tanks	1976 to present	None	No further action is recommended at this time.
5. Paint Solvent Still	Unknown to present	None	No further action is recommended at this time.

AOC	Operational Dates	Evidence of Release	Suggested Further Action
1. Outside Paint Solvent Fill Ports and USTs	Unknown to present	Minor releases from fill ports (Photo 1) but not to the environment.	No further action is recommended at at this time, pending testing results.
2. Underground Storage Tanks under North Parking Lot	Unknown to present	None	Under the proper authority, tank testing should be conducted.

Recommendations: No further action is recommended at this time.

SWMU 4 **Wastewater Treatment Tanks**

Conclusions: The wastes treated by this unit are monitored for pH and adjusted automatically before being discharged into the sanitary sewer system. There is no secondary containment but the tanks are indoors and in good condition. Therefore the potential for release to ground water, surface water, air, or soil is considered low.

Recommendations: No further action is recommended at this time.

SWMU 5 **Paint Solvent Still**

Conclusions: This unit is located in the paint vault which is a fully enclosed concrete structure with a ventilation system. A drain in the sloped concrete floor leads to a 5,000-gallon underground storage tank (AOC 2) used as secondary containment in the case of a release of wastes from the still. The potential for release to ground water, surface water, air or soil is considered low as the UST provides adequate secondary containment for the vault area.

Recommendations: No further action is recommended at this time.

AOC 1 **Outside Paint Solvent Fill Ports and USTs**

Conclusions: Solvents are transferred to the USTs by attaching tanker hoses directly to the fill ports. Photo 1 indicates that spills of product due to overflow from the fill port mouths may occur. In addition, the underground tanks are not easily monitored and may be corroded. For these reasons the potential for release to ground water and soil is moderate, while the release potential to air and surface water is low. At the time of inspection the USTs were in Phase I of testing to determine any actual or potential leakage. The testing was being performed by Nova Environmental.

Recommendations: No further action is recommended at this time, pending the results of the tank testing.

AOC 2 **Underground Storage Tanks under North Parking Lot**

Conclusions: At the time of the VSI, the 20,000-gallon tank contained 7,000 to 8,000 gallons of heating oil. The 5,000-gallon tank may be empty but is currently employed as secondary containment for the Paint Solvent Still (SWMU 5). The potential for release to ground water and soil is moderate as the USTs are not easily monitored and are subject to corrosion. Release potential to air and surface water is low.

Recommendations: Under the proper authority, tank testing should be conducted to determine actual or potential leakage.

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ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILD 005 087 812

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, Common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Acme Finishing Company, Inc.	1595 Oakton Street				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Elk Grove Village	IL	60007	Cook		
09 COORDINATES: LATITUDE	**LONGITUDE**				
42 01 18.N	087 57 42.W				

10 DIRECTIONS TO SITE *(Starting from nearest public road)*

The site is on the south side of Oakton Street, a four-lane road.

III. RESPONSIBLE PARTIES

01 OWNER *(If known)*	02 STREET *(Business, mailing residential)*		
Acme Finishing Co. Inc	1595 Oakton Street		
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 TELEPHONE NUMBER**
Elk Grove Village	IL	60007	(708) 640-7890
07 OPERATOR *(If known and different from owner)*	**08 STREET** *(Business, mailing, residential)*		
Same As Owner			
09 CITY	**10 STATE**	**11 ZIP CODE**	**12 TELEPHONE NUMBER**
			( )

13 TYPE OF OWNERSHIP *(Check one)*

■ A. PRIVATE □ B. FEDERAL: _____ *(Agency name)* □ C. STATE □ D. COUNTY □ E. MUNICIPAL

□ F. OTHER _____ *(Specify)* □ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*

■ A. RCRA 3010 DATE RECEIVED: 09 / 26 / 80 (MONTH DAY YEAR) □ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: / / (MONTH DAY YEAR) □ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

■ YES DATE 04 /11 / 91

□ NO

BY *(Check all that apply)*

□ A. EPA ■ B. EPA CONTRACTOR □ C. STATE □ D. OTHER CONTRACTOR

□ E. LOCAL HEALTH OFFICIAL □ F. OTHER: _____ *(Specify)*

CONTRACTOR NAME(S): Resource Applications, Inc.

02 SITE STATUS *(Check one)*

■ A. ACTIVE □ B. INACTIVE □ C. UNKNOWN

03 YEARS OF OPERATION

1976 (BEGINNING YEAR) | Present (ENDING YEAR) □ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Xylene, naphtha, trichloroethylene, diethanolamine/monoethanolamine, potassium hydroxide, waste oil, heating oil, paint, phosphoric acid, iron phosphate.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

The facility is located in an industrial/residential area. Sound secondary containment for the outdoor drum storage area would prevent a release from affecting the environment or local populations.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*

□ A. HIGH *(Inspection required promptly)* □ B. MEDIUM *(Inspection required)* ■ C. LOW *(Inspect on time-available basis)* □ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF *(Agency/Organization)*			03 TELEPHONE NUMBER
Kevin Pierard	U.S. EPA			(312) 886-4448
04 PERSON RESPONSIBLE FOR ASSESSMENT	**05 AGENCY**	**06 ORGANIZATION**	**07 TELEPHONE NUMBER**	**08 DATE**
William Dytrych		Resource Applications, Inc.	(312) 332-2230	08 / 14 / 91 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	ILD 005 087 812

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

- ■ A. SOLID
- ■ B. POWDER, FINES
- ■ C. SLUDGE
- □ D. OTHER _____ *(Specify)*
- □ E. SLURRY
- ■ F. LIQUID
- ■ G. GAS

02 WASTE QUANTITY AT SITE
(Measures of waste quantities must be independent)

TON _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS *(Check all that apply)*

- ■ A. TOXIC
- ■ B. CORROSIVE
- □ C. RADIOACTIVE
- □ D. PERSISTENT
- □ E. SOLUBLE
- □ F. INFECTIOUS
- ■ G. FLAMMABLE
- □ H. IGNITABLE
- ■ I. HIGHLY VOLATILE
- □ J. EXPLOSIVE
- □ K. REACTIVE
- □ L. INCOMPATIBLE
- □ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	Unknown		Tank sludge shipped out for treatment.
OLW	OILY WASTE	Unknown		Skim oil waste shipped out for treatment.
SOL	SOLVENTS	50	drums/yr.	Solvent bottoms shipped out for recycling.
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			Diethanolamine/monoethanolamine used as hot parts stripper.
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	Unknown		Phosphoric acid in washers treated in waste water tank.
BAS	BASES			Potassium hydroxide treated in waste water tank.
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Xylene	7439-92-1	UST/distilled on site		
	Naptha	8032-32-4	UST/distilled on site		
	Trichloroethylene	71-55-6	UST/distilled on site		
	Diethanolamine	111-42-2	Drummed/treated off site		
	Ethanolamine	141-43-5	Drummed/treated off site		
	Phosphoric acid	7664-38-2	Treated in waste water	Unknown	
	Potassium hydroxide	1310-58-3	Treated in waste water	Unknown	

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION *(Cite specific references; e.g., state files, sample analysis, reports)*

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EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	ILD 005 087 812

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUND WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

SWMU 1 has moderate potential for release to ground water, due to lack of secondary containment. AOCs 1 & 2 have a moderate potential for release to ground water due to the fact that they are underground storage tanks with no continuous monitoring system installed. All other units have low potential.

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: >35,000 — 04 NARRATIVE DESCRIPTION

SWMU 1 has moderate potential for release to surface water, due to lack of secondary containment. All other units have low potential.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: >35,000 — 04 NARRATIVE DESCRIPTION

SWMU 1 has moderate potential for release to air, due to the fact that volatiles are stored. All other units have low potential.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None identified.

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: >35,000 — 04 NARRATIVE DESCRIPTION

Low potential for direct contact. All operations and storage areas are locked after hours.

01 ☐ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: _____ (Acres) — 04 NARRATIVE DESCRIPTION

SWMU 1 has moderate potential for release to soils, due to lack of secondary containment. AOCs 1 & 2 have a moderate potential for release to soil fact that they are underground storage tanks with no continuous monitoring system installed. All other units have low potential.

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None identified. Elk Grove Village obtains its drinking water from Lake Michigan.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Low potential for worker exposure/injury. All hazardous substances are managed in compliance with RCRA regulations.

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Low potential for population exposure/injury. All operation are located inside a building that is locked outside business hours; the hazardous waste storage area is also locked after hours.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	ILD 005 087 812

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None identified.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION (Include name(s) of species)

None identified.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None identified.

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None identified.

01 ☐ N. DAMAGE TO OFF-SITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None identified.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPS — ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None identified.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None identified.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None identified.

III. TOTAL POPULATION POTENTIALLY AFFECTED: >35,000

IV. COMMENTS

V. SOURCES OF INFORMATION *(Cite specific references; e.g., state files, sample analysis, reports)*

Visual Site Inspection, April 11, 1991.

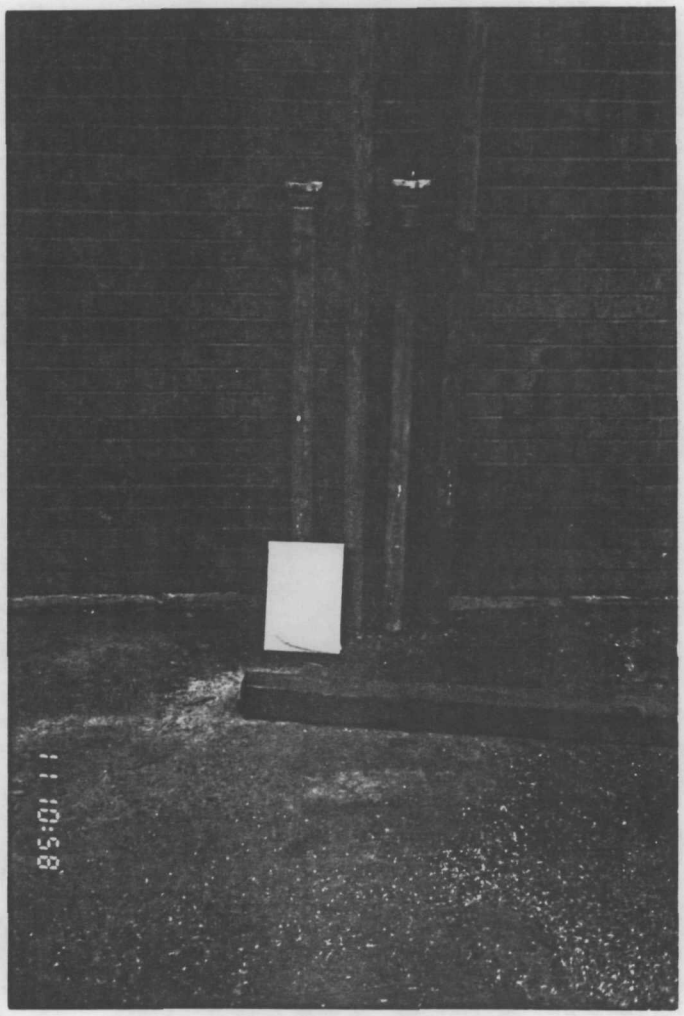
ATTACHMENT B

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

VISUAL SITE INSPECTION SUMMARY

Acme Finishing Co., Inc.
1595 Oakton Street
Elk Grove Village, IL

Date:	April 11, 1991
Facility Representatives:	Dennis Walters, Vice President
Inspection Team:	William Dytrych, RAI Ramona Reints, RAI
Photographer:	William Dytrych
Weather Conditions:	Partly cloudy, 45°F, NW Wind approximately 15 mph.
Summary of Activities:	RAI conducted a VSI at the facility. The VSI consisted of walking through the area, observing current and past waste disposal areas. Interviews with plant personnel also were conducted. The waste streams generated at the facility are properly managed and no problems were observed.



Photograph No. 1 **Location: AOC 1**
Orientation: East **Date: 04/11/91**
Description: Inlets for product paint solvents stored in underground tanks inside building. Inlets are capped and locked. Note whitish staining on wall. Partial view shown of the vent for each storage tank. Writing paper tablet shown for scale.

Photograph No. 2 **Location: SWMU 1**
Orientation: West **Date: 04/11/91**
Description: Entrance to outdoor drum storage area. Note posted signs. Area is secured.

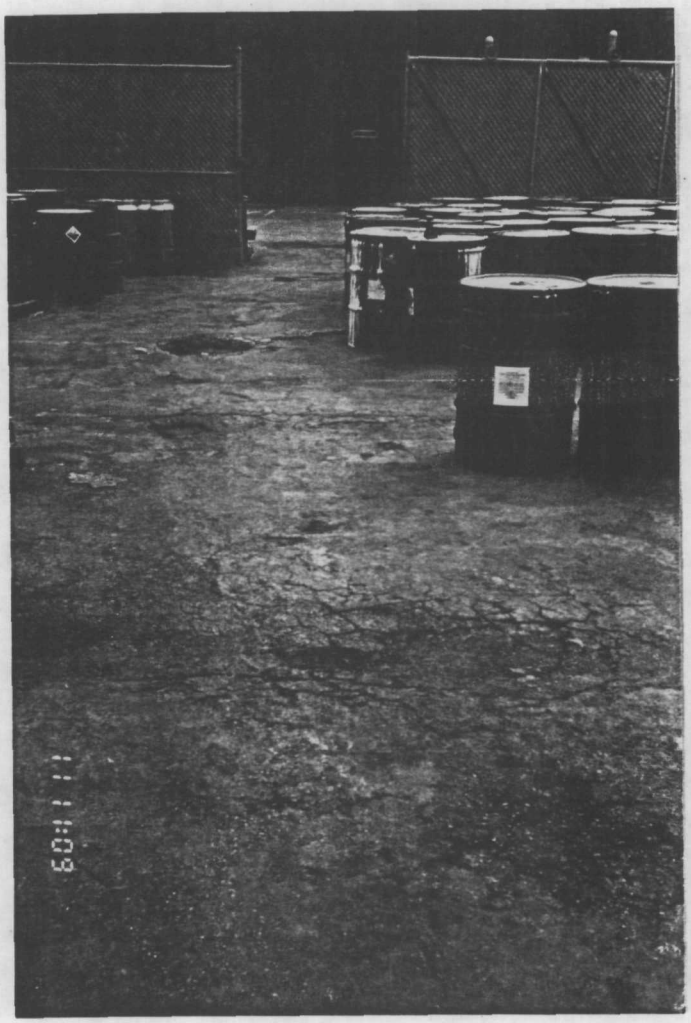
Photograph No. 3 **Location: SWMU 1**
Orientation: West Northwest **Date: 04/11/91**
Description: Drums of product parts cleaner inside north fence of outside drum storage area.

Photograph No. 4 **Location: SWMU 1**
Orientation: **East Southeast** **Date: 04/11/91**
Description: **Drums of product paint used as needed in operations.**

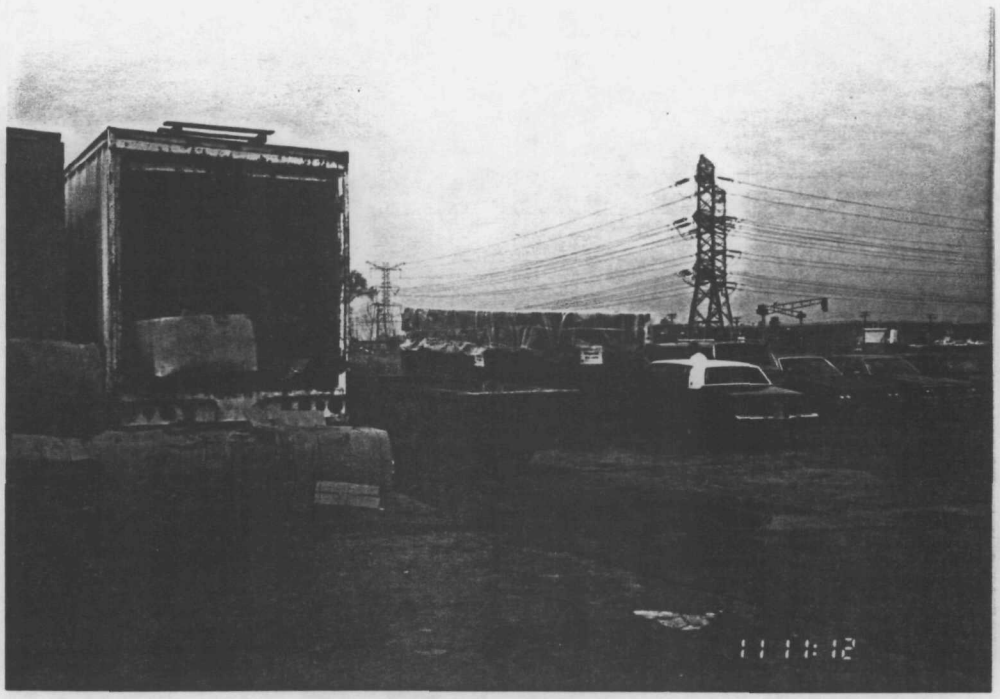
Photograph No. 5 **Location: SWMU 1**
Orientation: **Southwest** **Date: 04/11/91**
Description: **Black drums in foreground contain product paint used in operations. Center background shows empty overpacks stacked three high.**

Photograph No. 6 **Location: SWMU 1**
Orientation: West **Date: 04/11/91**
Description: 10 drums of hazardous waste, labelled and segregated inside west fence of drum storage area, containing paint solvent & TCE still bottoms and waste KOH. No secondary containment.

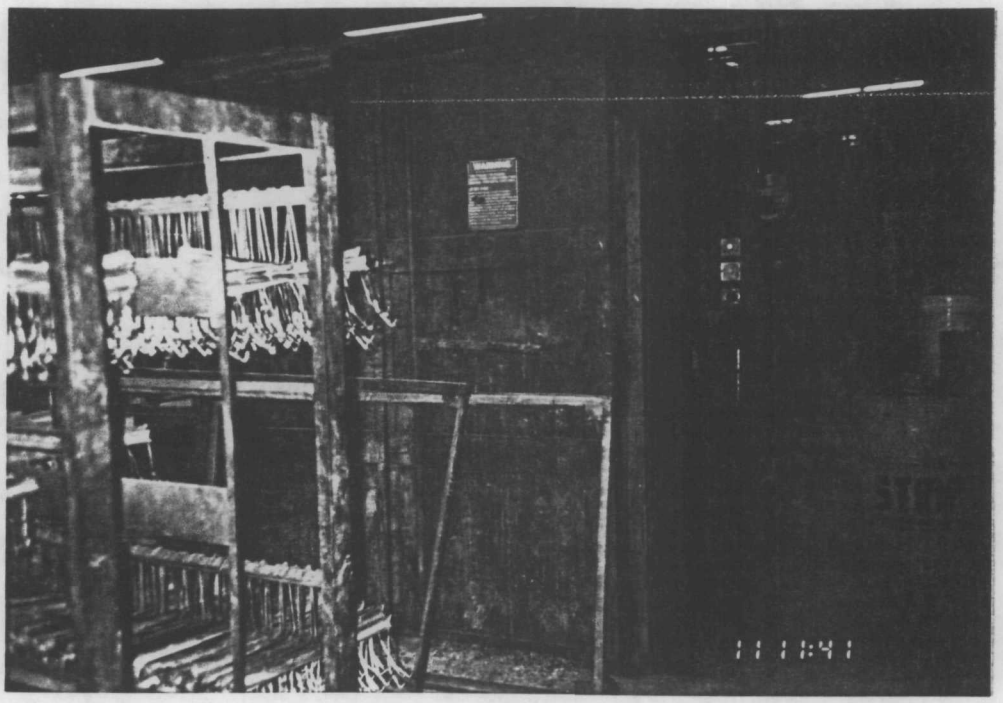
Photograph No. 7 **Location: SWMU 1**
Orientation: Down **Date: 04/11/91**
Description: Close-up view of asphalt flooring in front of hazardous waste drums. In spite of evidence of wear, integrity intact.



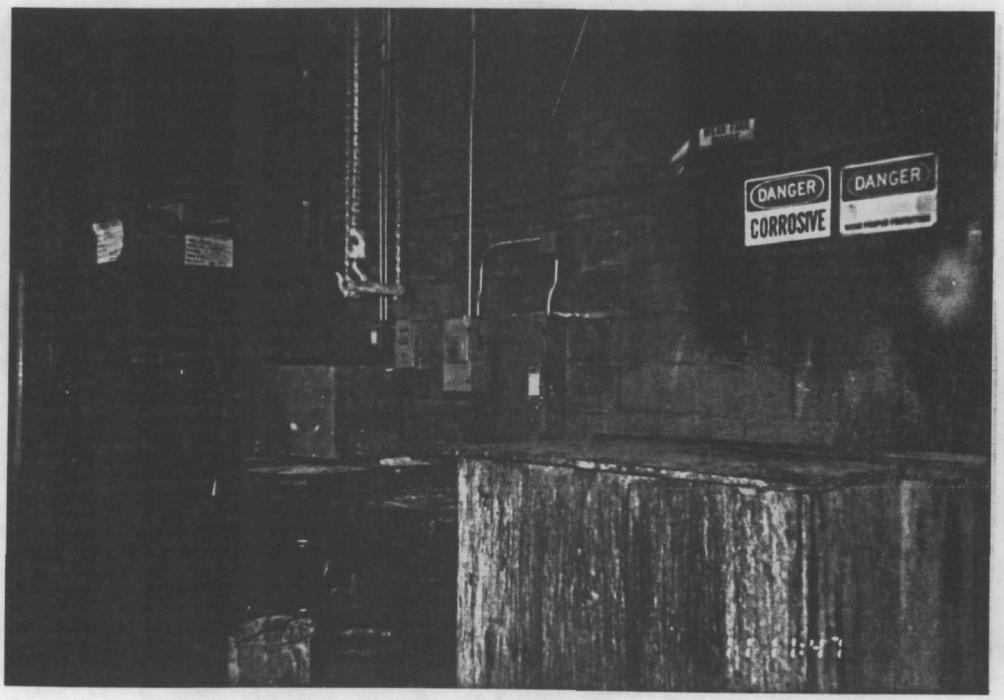
Photograph No. 8 **Location: SWMU 1**
Orientation: East **Date: 04/11/91**
Description: General view of condition of drum storage pavement showing pits and cracks.



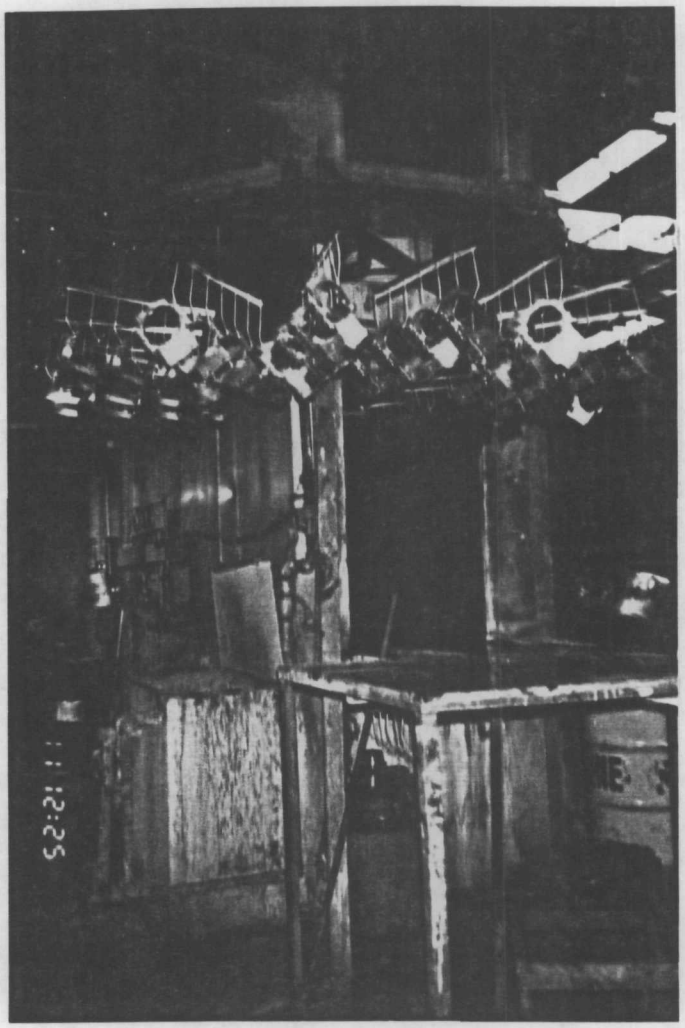
Photograph No. 9 **Location: SWMU 2**
Orientation: West Northwest **Date: 04/11/91**
Description: Special waste dumpster (lined with plastic) and general waste dumpster on west edge of parking lot.



Photograph No. 10 **Location: SWMU 3**
Orientation: East Northeast **Date: 04/11/91**
Description: Burn-off Oven used to incinerate volatiles and paint resins in paint accumulated on racks and gathered from spray booths.



Photograph No. 11 **Location: SWMU 6**
Orientation: Southwest **Date: 04/11/91**
Description: Solution of monoethanolamine/diethanolamine used to remove coatings on aluminum parts (lower right-hand side). Gas-fired TCE degreaser tank (left-hand side) segregated from sewer system.



Photograph No. 12 **Location: SWMU 4**
Orientation: North **Date: 04/11/91**
Description: Facility sump pit collects process wastewater and pumps it into first of two in-series treatment tanks. Continuous pH monitoring can trigger injection of sulfuric acid to neutralize alkalinity, followed by discharge to municipal sewer system.

ATTACHMENT C

VISUAL SITE INSPECTION FIELD NOTES

4/11/91

Acme Finishing Co., Inc.
1595 Oakton Street
Elk Grove Village, IL 60007
ILD 005 087 812
RCRA Facility Assessment: Visual
Site Inspection.

8:45 AM Research Applications, Inc
personnel (William Dykyck;
Ramona Reints) arrived at
site. Acme: Dennis Walters
Weather: Partly cloudy, ~45°F
NW wind ~15 mph.

Oakton is a 4-lane (2 east-
bound, 2 westbound) street.
Acme is on the south side.
Property to the east is a
Motel 6, to the west

an empty lot belonging to a mushroom farm. Halo Lighting, a manufacturing concern that is Acme's largest account, is to the South. In fact, the 2 facilities are directly connected. To the north, across Oakton, is a Midway Motor Lodge and a small office complex. Thus, land use in the area is predominantly light industry.

Acme has been in business for nearly 60 years. This is their most recent facility at which they began operations on 8/9/76 after moving from Rosemont. Some years prior to their arrival, McGraw Edison purchased a 50-acre tract of farmland which included the Acme site. Halo Lighting, an operation of McGraw Edison, set up their facilities not long after this purchase. After a number of years and the growing of Halo Lighting, Acme moved to its present location in 1976.

Acme provides custom paint finishing service for manufacturers of diversified metal products. Starting materials are prefabricated metal parts of, mostly, steel and aluminum. Aluminum/zinc die-casting materials and magnesium materials have also been treated. Paint coatings are applied to these parts and then baked on. The coatings include high- and low-solid solvent based paints; water-based paints; and, dry, powder coatings electrostatically applied.

Past and present wastes have included:

(i) paint wastes — ~~principal~~ colors are white, black and grey. Have used some red, orange and yellow tints which do contain lead. Currently, are requesting all paints be Pb-free.

(ii) paint thinners — high-solid paints are 60-70% solids, and must be thinned for some applications. 3 types of thinners:

(a) toluene (toluol) is not used anymore.

(b) xylene

(c) mineral spirits — principal ingredient of Ensol 150.

ATTACHMENT D

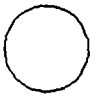
PROCESS FLOW DIAGRAM

LEGEND FOR PROCESS FLOW DIAGRAM

PROCESS IDENTIFICATION NUMBER;

WASTE SYMBOLS AND SYMBOL CODES;

NON-HAZARDOUS & SPECIAL WASTES-



NON-HAZARDOUS WASTES

WASTEWATER

PAINT-COATED FIBERGLASS FILTERS, PAPER, CARDBOARD AND PLASTIC; SLUDGE FROM SPRAY BOOTHS

WASHER SLUDGE AND WASTEWATER TREATMENT SLUDGE

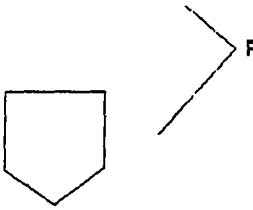
SKIM OIL SLUDGE (FROM WASHER)

OVEN ASH (FROM BURN-OFF OVEN)

EXCESS POWDER PAINT (SOLIDIFIED BEFORE DISPOSAL)

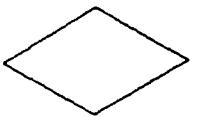
BAKED DRY PAINT

HAZARDOUS WASTES

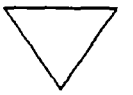


PAINT-CONTAMINATED SOLVENTS

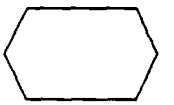
PAINT SOLVENT STILL BOTTOMS



DIRTY TRICHLOROETHYLENE



TRICHLOROETHYLENE STILL BOTTOMS



WASTE POTASSIUM HYDROXIDE

WASTE DEA/MEA

ACME FINISHING CO. INC. PROCESS FLOW DIAGRAM REVISED: 8-8-90 J. Walter